

MAY 25 2010

Amendment to the Claims

1.(Amended) An ~~A roll sheet~~ assembly comprising a cylindrical core pipe having a cylindrical outer periphery and a cylindrical inner periphery, and a roll of sheet material wound around said cylindrical outer periphery of said core pipe, said assembly being for use with a drug packaging device provided with a sheet tension adjusting device, said drug packaging device including a sheet feed unit and a packaging unit; said sheet feed unit comprising a fixed shaft, a ~~first~~ rotary shaft rotatably mounted around the fixed shaft for supporting said core pipe; and carrying said roll of sheet material, a first brake means for applying a braking force to the ~~first~~ rotary shaft; and feed rollers for feeding the sheet material from said roll of sheet material; and ~~{,}~~ a second brake means for producing a constant braking force between the ~~first~~ rotary shaft and said roll of sheet material; ~~{,}~~

~~the {a} packaging unit comprising: {a triangular plate for folding the sheet material in half so as to form a valley in the sheet material, a hopper for dropping drugs into the valley formed in the sheet, and heating rollers for heat sealing the sheet material in a width direction at predetermined intervals and along top edges thereof to form a plurality of bags with the drugs sealed therein,} a sealing portion for heat-sealing said sheet material in a width direction at predetermined intervals and longitudinally to form a plurality of bags with drugs sealed therein;~~

~~the sheet feed unit further comprising:~~

~~an angle sensor for detecting a rotation angle of said core pipe; a sheet length sensor for measuring a feed length of the sheet material in a sheet feed path leading to the packaging unit; a first angle sensor for detecting a rotation angle of said roll of sheet material; and a control unit for calculating a current sheet length on said roll of sheet material and the diameter of said roll of~~

sheet material based on the sheet length measured by the sheet length sensor and the rotation angle measured by the angle sensor, and controlling a direct-current voltage applied to the first brake means; [,]

    said {roll sheet} assembly further comprising {a cylindrical second rotary shaft having a cylindrical outer periphery and a cylindrical inner periphery, sheet material wound on said cylindrical outer periphery of said second rotary shaft, and} at least one magnet provided radially inwardly of the inner peripheral surface {on said cylindrical inner periphery} of said {second rotary shaft} roll of sheet material.

2.(Amended) The {roll sheet} assembly as claimed in claim 1, wherein said at least one magnet comprises four magnets circumferentially spaced at equal intervals.

3.(Amended) The {roll sheet} assembly as claimed in claim 1, wherein said magnet is detachably mounted on said inner [cylindrical] periphery of said core pipe {second rotary shaft}.

4. (Currently Amended) A core pipe assembly for a sheet roll comprising a hollow core pipe having a predetermined length and having an outer periphery on which sheet material is adapted to be wound, and at least one magnet provided radially inwardly of an inner peripheral surface of the sheet material wound on the outer periphery of said core pipe,

said at least one magnet being positioned such that the winding amount and diameter of the sheet material wound on said core pipe can be calculated by an angle sensor provided on a fixed shaft for receiving said hollow core pipe, said hollow core pipe being rotatable together with a hollow rotary shaft rotatably mounted on said fixed shaft.

5. (Previously Presented) The core pipe assembly of claim 4, wherein said hollow rotary shaft is inserted in said hollow core pipe, and said core pipe assembly further comprises means for rotating said hollow core pipe and said hollow rotary shaft, said rotating means including a magnetizable member provided on an end face of said hollow core pipe and a magnet provided on said hollow rotary shaft.

6. (Currently Amended) A core pipe for a sheet roll comprising a hollow core pipe having a predetermined length and an outer periphery on which a sheet material is adapted to be wound, and a plurality of magnets provided radially inwardly of the inner peripheral surface of the sheet material at circumferential intervals determined such that the amount and diameter of the sheet roll wound on said core pipe can be calculated by an angle sensor provided on a fixed shaft,

said plurality of magnets being provided such that said intervals are such that detection of said magnets is carried out at equal angular intervals while said hollow core pipe makes one revolution, said magnets being rotatable together with the sheet roll.

7. (Previously Presented) An assembly comprising a cylindrical core pipe having a cylindrical outer periphery and an inner periphery, and a roll of sheet material wound around said cylindrical outer periphery of said core pipe, said assembly being for use with a drug packaging device provided with a sheet tension adjusting device, said drug packaging device including a sheet feed unit and a packaging unit;

said sheet feed unit comprising:

a fixed shaft;  
a rotary shaft rotatably mounted around said fixed shaft for supporting said core pipe;  
a first brake means for applying a braking force to said rotary shaft;  
feed rollers for feeding the sheet material from said roll of sheet material; and  
a second brake means for producing a constant braking force between the rotary shaft and  
said roll of sheet material;  
said packaging unit comprising:  
a sealing portion for heat-sealing said sheet material in a width direction at predetermined  
intervals and longitudinally to form a plurality of bags with drugs sealed therein;  
the sheet feed unit further comprising:  
a first angle sensor for detecting a rotation angle of said core pipe;  
a sheet length sensor for measuring a feed length of the sheet material in a sheet feed path  
leading to said packaging unit;  
a control unit for calculating a current sheet length on said roll of sheet material and the  
diameter of said roll of sheet material based on the sheet length measured by said sheet length  
sensor and the rotation angle measured by said first angle sensor, and controlling a direct-current  
voltage applied to said first brake means; and  
a second angle sensor for detecting a rotation angle of said rotary shaft;  
wherein if signals from said first and second angle sensors do not coincide, said rotary  
shaft and said core pipe are judged rotating relative to each other, so that tension is relaxed by  
controlling a direct-current voltage applied to said first brake means,  
said assembly further comprising at least one magnet provided radially inwardly of the  
inner peripheral surface of said roll of sheet material.

8. (Previously Presented) The assembly of claim 7, wherein said at least one magnet comprises four magnets circumferentially spaced at equal intervals.

9. (Previously Presented) The assembly of claim 7, wherein said at least one magnet is detachably mounted on the cylindrical inner periphery of said core shaft.